FGJ 2017 Lappeenranta
Wave Breaker

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What type of game were you making, what was the first draft of the game?

Wave breaker is a reaction-based action puzzle game. The first idea came from Otto, and we brainstormed until the idea was ready. The first draft was a game where you shoot waves from each side of the screen and use those to deflect enemy waves that also spawn from all four sides.

There were also some ideas of making the waves color coded and so that they can only deflect waves of some other specific color, as well as making the waves spawn from eight sides instead of four, meaning they would spawn from the screen's corners as well.

How did you come up with the idea for the game, how did you "refine" it?

We threw around different ideas and then chose one that everyone was okay with. After the initial idea, we designed the game a bit further. After that, the rest of the ideas just came up during the development.

We mainly refined the first draft of the game by deciding on the different mechanics and elements we would settle on, i.e. waves spawning from 4 sides instead of 8, waves only in 2 colors to tell apart the player and the computer but without giving the colors any deeper meaning and locking the idea of the waves spawning in a certain accelerating rhythm instead of random intervals.

How much prior experience did your group members have?

Elias and Jaakko had been in the FGJ 2016. Otto had participated in Game Development Crash Course last year along with Elias and Jaakko. Jonna had been in some Game Jams before.

In a few sentences, describe what applicable experience your group had (such as programming skills, 3D modeling skills, how many years of experience?)

All of us study or studied computer science. Elias, Jaakko and Otto were on the second year, Jonna was post-graduate. We had also taken game development courses and/or participated in the former Game Jams. Jonna had some earlier

experience making games with pure javascript and composing music and Jaakko and Otto had created small javascript games for their WWW Applications course's practical work assignments.

Which tools and development methods did you apply, why?

We used Unity 3D in making the actual game. Graphics were made with Gimp and Marmoset Hexels, the music was composed with Reason.

We chose Unity because the engine was relatively easy to use and Elias and Jaakko had some small scale past experience with the tool. Some of the graphics were made using Gimp because it's a free software with a vast amount of features. The rest were made with Hexels, that Jaakko and Otto had recently bought and wanted to test out. Jonna created the sound effects and menu music using Reason because of her past experience with the software.

Which were the most important objectives in your development (visual presentation, the game rules, balance etc…), why?

The most important objective was obviously to get the core mechanics like wave spawning and destroying working. The overall goal was to make a hectic and visually satisfying action game. Gameplay should have also been intense, but fair to the player.

How did you test your game demo?

We played it ourselves until it was almost ready. In Sunday we invited some members from the adjacent group to test the game. We made some finishing touches according to the feedback.

How close to the original idea did you get (draft vs. actual demo)? What were the most difficult parts in your work, why?

We pretty much succeeded in what we originally thought we were going to make. The actual demo had some additional features though, which we hadn't thought of during the initial brainstorming, like various powerups and score multiplier system.

Did you change your game design during the implementation? i.e. To eliminate some obstacles because of technology difficulty?

We didn't really change the design in ways that would change our first idea of the game. We did however bounce around some ideas like making the game react to a beat of a song, but ended up leaving those out because of the difficulty it would've brought to the development.

Did you use any ideas from systematic software development methodology (such as Waterfall or Agile) during the game development? If you did, which one did you select? And if not, why?

We didn't have any kind of plan for the software development process. It was unnecessary, since Wave Breaker was so small a project. The process resembled Agile, though.

As a game developer, do you prefer advanced game engines (such as Unity3D) or traditional tools and libraries for game making? Why?

We mostly prefer advanced game engines like Unity3D, since they make the game making easier and significantly reduce the amount of groundwork one must do. Of course traditional tools and libraries give more freedom if you know what you're doing, but take time to master and significantly more time during the actual development.

Did you design the game architecture and write down the design document during game development?

Nope. We mainly did some rough sketches during the planning phase and when we were actually making the game. Features that the game was supposed to have were written on a piece of paper as a collective list.

How large proportion of your project time did you dedicate to the game design?

Largely the whole first day and then some small moments every now and then during the development - i.e. lunch breaks etc. The designing happened whenever we felt stuck or like something was lacking from the game.

Should you continue with the demo development, which would be the next activities you would do?

First thing to add would probably be some music for the actual game. At the moment there's only background music for the main menu. After that getting the game react to different sounds like the drum beats of a song to make it more of a *rhythm* game would be nice. Then the player could simply import their own songs into the game, so those can be played in the background while the spawn rate is modified to be in sync with the song.

The game's controls also need a little refining. We're still not sure if the current "inverted" style of the controls is the best option and the power-up controls are not necessarily optimal for every player (WASD/Arrows + HJKM).

## If you were to redo the demo completely, what would you do differently?

We would at very least use Unity 2D instead of 3D. We chose 3D because of tutorials, but it ended up making the developing more complicated and the demo more hardware-consuming that it should have been.

Regarding the game's art style, at the moment it mixes several different styles. It would've been better to create the whole game utilizing only one style to make the game feel like a more "complete" package.

Feedback on the Game Jam event, the course, etc.

The Game Jam was overall a nice and enjoyable experience, a welcome twist to the monotonous school/work life. Free snacks and sauna were a plus.

Gallery
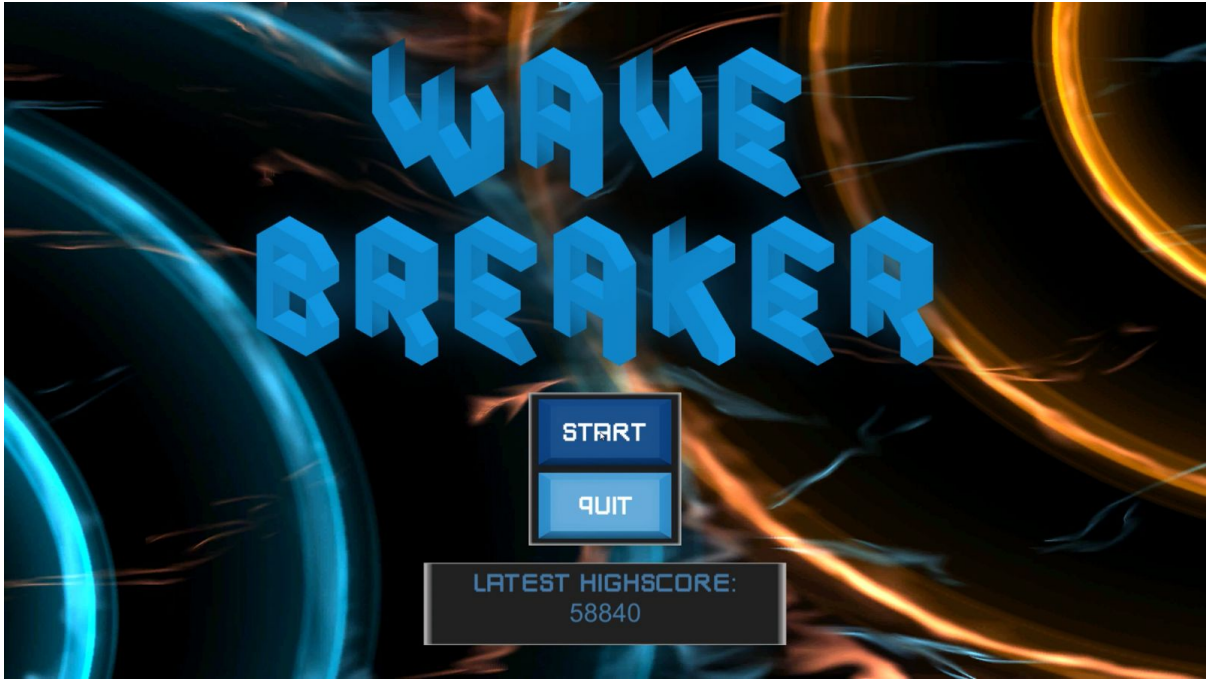
Menu Screen

Gameplay: Invulnerability Power-Up activated

Gameplay: Extra Life Power-Up unlocked

Game Over Screen